

ABSTRACT OF DISCLOSURE

In order to more accurately control the radiation characteristics of microwaves to improve the controllability of processing in radial and circumferential directions of an article, there are disclosed a microwave applicator and a plasma processing apparatus using the applicator, which comprise a circular waveguide having a surface provided with a plurality of slots for radiating microwaves, wherein the centers of the plurality of slots are offset in a direction parallel to the surface with respect to the center of the circular waveguide.